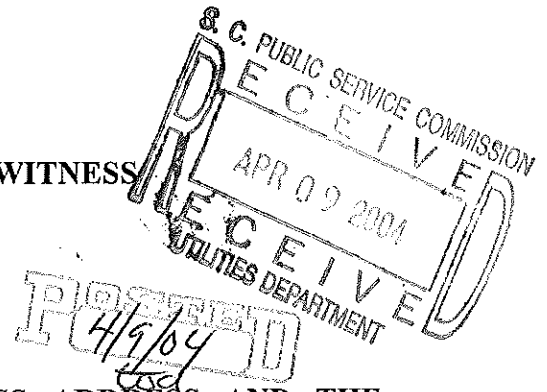


**DIRECT TESTIMONY
OF
PROGRESS ENERGY CAROLINAS, INC. WITNESS
KRISTI WISE**

SCPSC DOCKET NO. 2004-¹⁰⁰-E



1 **Q. PLEASE STATE YOUR NAME, YOUR BUSINESS ADDRESS AND THE**
2 **POSITION YOU HOLD WITH BURNS AND MC DONNELL.**

3 A. My name is Kristi Wise and my business address is 9400 Ward Parkway, Kansas City,
4 Missouri 64114. I am a Senior Environmental Scientist and Project Manager for Burns
5 and McDonnell.

6 **Q. PLEASE STATE BRIEFLY YOUR EDUCATIONAL AND PROFESSIONAL**
7 **BACKGROUND.**

8 A. I am a graduate of Kansas State University with a Bachelor of Science Degree in Wildlife
9 Biology. I attended graduate school at Utah State University and received a Master of
10 Science Degree in Wildlife Biology. I worked for the Missouri Department of
11 Conservation for three years prior to joining Burns and McDonnell about five years ago.

12 **Q. WHAT ARE YOUR CURRENT RESPONSIBILITIES WITH BURNS AND**
13 **MCDONNELL?**

14 A. I am a Project Manager and Environmental Scientist for Burns and McDonnell. I have
15 managed numerous transmission line routing projects throughout the country, including
16 public involvement programs, since joining Burns and McDonnell. I currently manage
17 four (4) transmission line projects in North and South Carolina, one (1) project in
18 Wisconsin, and assist with one (1) transmission line project in Connecticut. I have also
19 provided guidance on projects involving impacts to threatened and endangered species.

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

2 A. The purpose of my testimony is to discuss the potential environmental impacts of these
3 projects and the mitigation techniques Progress Energy Carolinas, Inc. (PEC) will use to
4 minimize the impacts. I will also discuss the cultural resource investigations conducted.

5 **Q. HAS PEC TAKEN ALL REASONABLE STEPS TO MINIMIZE THE**
6 **ENVIRONMENTAL IMPACT OF THESE PROJECTS?**

7 A. Yes. Many potential environmental and land use impacts of these projects were
8 minimized during the initial siting process by avoidance. Impacts to cropland were
9 minimized when possible by following fence and property lines. Each of the proposed
10 transmission lines follows direct routes frequently along existing corridors, thereby
11 reducing environmental and land use impacts. The transmission line clearing and
12 construction activities are designed to minimize environmental impacts. Trees in wet
13 areas will be hand cut and structures will be located outside these areas as much as
14 practicable. The root mat within the right-of-way will not be disturbed. Impacts to
15 wetlands, threatened and endangered species and cultural resources will be minimized as
16 required by the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and the
17 State Historic Preservation Office (SHPO), respectively. All clearing, construction and
18 maintenance will be completed in accordance with Best Management Practices (BMP)
19 published by the South Carolina Forestry Commission. Visual impacts will be minimized
20 by using a single pole made of weathering steel that will blend in with the surrounding
21 trees, and by paralleling other existing transmission lines as much as possible in these
22 areas.

1 **Q. PLEASE DESCRIBE THE ENVIRONMENTAL IMPACT OF CONSTRUCTING**
2 **THE FLORENCE-MARION 230-kV TRANSMISSION LINE.**

3 A. An inventory of natural and human resources, including topography, soils, hydrology,
4 vegetation, wetlands, wildlife, threatened and endangered plant and animal species, land
5 uses, cultural resources, population, employment, and visual character was conducted
6 within the study area, which is described in detail in Exhibit B, the routing study and
7 environmental report for this project.

8 The Florence-Marion preferred route was selected because it will have relatively
9 minor overall impacts. The preferred route parallels both existing transmission lines and
10 gas pipelines for approximately 86% of its length, which reduces the required new right-
11 of-way and minimizes impacts to agricultural land, woodland and wetlands. The
12 preferred route also has minimal residential impacts compared to most of the alternative
13 routes. Only three houses are located within 200 feet of the preferred route. The
14 preferred route crosses 207 acres of woodlands, 48 acres of agricultural land, 143 acres of
15 wetlands, and 12 perennial streams. In order to avoid long-term impacts on streams, no
16 structures will be placed in or near the streams and all streams are narrow enough that
17 they can easily be spanned with normal spacing of the structures. Short-term impacts
18 such as increased turbidity and localized disturbance of the stream bottom could occur as
19 a result of stormwater runoff; however, these impacts would not significantly alter water
20 quality conditions and would be temporary. By following BMP, these impacts will be
21 minimized. Tall vegetation will be permanently cleared from the transmission line right-
22 of-way. Herbaceous, low-growing vegetation will remain in the right-of-way or will be

1 re-seeded following construction. Impacts to wildlife will primarily be temporary,
2 resulting from displacement and disturbance due to construction noise and activity. No
3 threatened or endangered species should be impacted because activities will be
4 coordinated with the U.S. Fish and Wildlife Service. Impacts to wetlands are regulated
5 by the U.S. Army Corps of Engineers and will consist primarily of the conversion of
6 forested wetlands to emergent wetlands. Likewise, consultation with the SHPO will
7 ensure no cultural resources are impacted by the preferred route.

8 By following the company's standard construction practices, the route selection
9 process described, and by employing mitigation techniques, most potential impacts of the
10 selected route will be either avoided or minimized. As a result, the construction and
11 operation of the proposed project will have minimal effects on the natural resources and
12 human resources within the study area.

13 **Q. WHAT WAS THE CONCLUSION OF THE ENVIRONMENTAL STUDIES**
14 **CONDUCTED FOR THE PROPOSED FLORENCE-MARION TRANSMISSION**
15 **LINE?**

16 **A.** The construction and operation of the proposed Florence Substation-Marion Substation
17 Transmission Line Project will have minimal to moderate impacts on natural and human
18 resources in the study area. The preferred route will have relatively minor overall
19 impacts. The potential impacts are mitigated by following existing transmission lines
20 between the Florence and Marion substations.

21 **Q. WHAT WAS THE CONCLUSION OF THE CULTURAL RESOURCE**
22 **INVESTIGATION THAT WAS CONDUCTED ALONG THE ROUTE OF THE**

1 **FLORENCE-MARION PROPOSED TRANSMISSION LINE?**

2 A. The route identification process included avoidance, to the extent possible, of known
3 historical and archaeological resources. A records search of the study area was conducted
4 by a Burns & McDonnell archaeologist at the South Carolina Institute of Archaeology
5 and Anthropology, University of South Carolina.

6 Over 140 recorded archaeological sites, landmarks, and historical structures were
7 identified within the study area. Only nine of these sites are either eligible or
8 recommended to be eligible for the National Register of Historic Places (NRHP). An
9 additional 28 sites are potentially eligible for inclusion on the NRHP. The SHPO needs
10 additional information for these sites before a determination of eligibility can be made.

11 Five sites in the study area are listed on the NRHP. A large majority of the study
12 area has not been surveyed. Most of the sites identified within the study area were
13 clustered in areas where recent surveys had been recorded due to development (e.g.,
14 Roche Carolinas, Inc., Pee Dee Regional Commerce Center).

15 None of the eligible or listed NRHP sites will be impacted by the proposed route.

16 Additional cultural resource issues may arise when consultation with the SHPO is
17 initiated which will occur upon approval of a route by the Commission. The SHPO may
18 require shovel-testing along the route to document the presence or absence of artifacts
19 since a majority of the study area has not been surveyed. The findings of the survey will
20 be submitted to the SHPO, and any proposed mitigation will be coordinated with them. If
21 any cultural resources are discovered during construction, PEC will stop construction at
22 that location and immediately notify the SHPO. Pole placement generally can be adjusted

1 to avoid most sites.

2 **Q. PLEASE DESCRIBE THE ENVIRONMENTAL IMPACT OF CONSTRUCTING**
3 **THE MARION-WHITEVILLE 230-kV TRANSMISSION LINE.**

4 A. An inventory of natural and human resources, including topography, soils, hydrology,
5 vegetation, wetlands, wildlife, threatened and endangered plant and animal species, land
6 uses, cultural resources, population, employment and visual character was conducted
7 within the study area, which is described in detail in Exhibit D, the routing study and
8 environmental report for this project.

9 The Marion-Whiteville preferred route was selected because it will have the least
10 overall environmental and social impacts. The preferred route parallels both existing
11 transmission lines and gas pipelines, which reduces the required new right-of-way and
12 minimizes impacts to agricultural land, woodland and wetlands compared to all-new
13 rights-of-way. The preferred route has minimal residential impacts compared to the other
14 routes considered. The preferred route crosses 149 acres of woodlands, 91 acres of
15 agricultural land, 68 acres of wetlands and 16 perennial streams. The preferred route
16 crosses less cleared agricultural land than most other alternate routes and impacts
17 relatively few wetlands compared to the other routes.

18 By following the company's standard construction practices, the route selection
19 process described, and by employing mitigation techniques, most potential impacts of the
20 selected route will be either avoided or minimized. As a result, the construction and
21 operation of the proposed project will have minimal effects on the natural resources and
22 human resources within the study area.

1 **Q. WHAT WAS THE CONCLUSION OF THE ENVIRONMENTAL STUDIES**
2 **CONDUCTED FOR THE MARION-WHITEVILLE PROPOSED**
3 **TRANSMISSION LINE?**

4 A. The construction and operation of the proposed Marion Substation-Whiteville Substation
5 Transmission Line Project will have minimal to moderate impacts on natural and human
6 resources in the study area. The preferred route will have relatively minor overall
7 impacts. There are no homes located within 200 feet of the preferred route.
8 Approximately 38 percent of the preferred route will be parallel to an existing
9 transmission line. The visibility impact of the preferred route is one of the lowest of all
10 the routes analyzed for this project. Additionally, the portion of the line in South
11 Carolina will follow existing transmission lines for its entire length.

12 **Q. WHAT WAS THE CONCLUSION OF THE CULTURAL RESOURCE**
13 **INVESTIGATION THAT WAS CONDUCTED ALONG THE ROUTE OF THE**
14 **MARION-WHITEVILLE PROPOSED TRANSMISSION LINE?**

15 A. The route identification process included avoidance, to the extent possible, of known
16 historical and archaeological resources. A records search of the study area was conducted
17 by a Burns & McDonnell archaeologist at the South Carolina Institute of Archaeology
18 and Anthropology, University of South Carolina and the North Carolina Department of
19 Cultural Resources, SHPO, Office of Archives and History and Survey Planning Branch
20 in November 2002.

21 Burns & McDonnell located a total of 25 recorded archaeological sites,
22 landmarks, and historical structures within the study area, none of which are located in

1 South Carolina. The search for the Marion-Whiteville Project indicated that there are no
2 NRHP-listed or eligible archaeological sites or historical structures within 1,300 feet of
3 the preferred route.

4 Additional cultural resource issues may arise when consultation with the SHPO is
5 initiated, which will occur upon approval of a route by the Commission. The SHPO may
6 require shovel-testing along the route to document the presence or absence of artifacts
7 since a majority of the study area has not been surveyed. The findings of the survey will
8 be submitted to the SHPO, and any proposed mitigation will be coordinated with them. If
9 any cultural resources are discovered during construction, PEC will stop construction at
10 that location and immediately notify the appropriate SHPO. Pole placement generally can
11 be adjusted to avoid most sites.

12 **Q. Are the proposed routes for both new transmission lines the best routes?**

13
14 A. Yes. The proposed route for the Florence-Marion line was selected from nearly two
15 hundred routes considered because it would have the least overall cumulative
16 environmental and social impacts. Similarly, the proposed route for the Marion-
17 Whiteville line was selected from over a hundred routes considered because it would
18 have the least overall environmental and social impacts.

19 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

20 A. Yes.

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